



The Commonwealth of Massachusetts

DEPARTMENT OF

TELECOMMUNICATIONS AND ENERGY

BAY STATE GAS COMPANY
D.T.E. 05-27

THIRD SET OF INFORMATION REQUESTS OF THE DEPARTMENT OF
TELECOMMUNICATIONS AND ENERGY TO
THE COMPANY

Pursuant to 220 C.M.R. § 1.06(6)(c), the Department of Telecommunications and Energy ("Department") submits to Bay State Gas Company ("Company") the following Third Set of Information Requests for response within ten days of issuance:

- DTE 3-01 Refer to Exh. BSG/DGC-1, at 8. Please provide copies of:
- (1) the referenced U.S. Department of Transportation and Department regulations concerning leakage surveys;
 - (2) any other policy manuals or publications used by the Company in performing its annual leak detection surveys on mains; and
 - (3) any reports prepared based on the annual leak detection surveys for years 2000 through 2004.
- DTE 3-02 Refer to Exh. BSG/DGC-1, at 9. Please provide the referenced U.S. Department of Transportation data used as a basis for ranking Bay State, relative to regional local distribution companies, in terms of the number of leaks in backlog at year-end.
- DTE 3-03 Refer to Exh. BSG/DGC-1, at 10. Please provide a copy of the referenced "Guide for Gas Transmission and Distribution Piping Systems."
- DTE 3-04 Please provide a copy of Exh. BSG/DGC-2, Atts. A-F.
- DTE 3-05 Refer to Exh. BSG/DGC-1, at 15. Please provide any studies, reports and memoranda relied upon by the Company to support its conclusion that in recent

years there have been an increasing number of leaks in areas where unprotected steel mains are concentrated.

- DTE 3-06 Refer to Exh. BSG/DGC-1, at 16. Please provide any studies, reports and memoranda relied upon by the Company to support its conclusion that Bay State's recent corrosion leak rate per year is three times the leak rate of 17 years ago.
- DTE 3-07 Refer to Exh. BSG/DGC-1, at 19. Please explain why higher operating pressures cause corrosion leaks more quickly than would lower operating pressures. Provide any supporting studies for this statement.
- DTE 3-08 Refer to Exh. BSG/DGC-1, at 7. Please provide with supporting calculations an estimate of the percentage of Bay State's system that operates at pressure of 100 pounds per square inch gauge or greater. Provide these percentage estimates separately for the Brockton, Lawrence and Springfield service areas.
- DTE 3-09 Refer to Exh. BSG/DGC-1, at 9 and 16-17. Please provide for the years 1985 through 2004 the following:
- (1) the number of main leaks detected by type and by service area (Brockton, Lawrence, Springfield);
 - (2) the number of main leaks repaired by type and by service area; and
 - (3) a measure of the "leak backlog/repair performance" indicating the annual cumulative number of leaks detected and the annual cumulative number of leaks repaired.
- DTE 3-10 Refer to Exh. BSG/DGC-1, at 10-14. Please provide for the years 1985 through 2004 the following:
- (1) the lengths of mains by type of pipe (e.g., cast iron, wrought iron, bare steel, coated steel, cathodically protected steel, plastic) in the Brockton, Lawrence, and Springfield service areas, as well as the Company-wide totals;
 - (2) the lengths and costs of non-discretionary replacement mains installed by type of pipe in the Brockton, Lawrence, and Springfield service areas, as well as the Company-wide totals;
 - (3) the lengths and costs of discretionary mains installed by type of pipe in the Brockton, Lawrence, and Springfield service areas, as well as the Company-wide totals.

- DTE 3-11 Refer to Exh. BSG/DGC-3, n.1. Please provide a copy of the U.S. Department of Transportation Office of Pipeline Safety (DOT form RSPA F7100.1-1) for the years 2000 through 2004.
- DTE 3-12 Refer to Exh. BSG/DGC-3. Please provide a schedule that breaks down the total number of leaks under each category for each year into Type I, II and III leaks. Also provide similar schedules for the Brockton, Lawrence, and Springfield service areas.
- DTE 3-13 Refer to Exh. BSG/DGC-3. Please provide a schedule that shows the number of services leaks by Type I, II, and III leaks for each indicated category for each year. Also provide similar schedules for the Brockton, Lawrence, and Springfield service areas.
- DTE 3-14 Refer to Exh. BSG/DGC-4. Please provide the number of customer meters for the years 1992 through 2004 for each municipality. Indicate the Company service area(s) for each municipality.
- DTE 3-15 For years 2000 through 2004, please provide schedules with supporting data and calculations comparing the average size of mains that were removed with the average size of mains installed for the Brockton, Lawrence, Springfield service areas as well as Company-wide. Describe the Company's method used as well as any assumptions relied upon.
- DTE 3-16 Refer to Exh. BSG/DGC-1, at 25. Please list and explain the reasons why the Company would decide to use cathodically protected steel mains versus plastic mains in its steel infrastructure replacement program.
- DTE 3-17 Refer to Exh. BSG/DGC-5. Please provide supporting documentation and workpapers used in determining the following:
(1) the estimated average direct cost per unit; and
(2) the 31 percent capital overhead factor.
- DTE 3-18 Refer to Exh. BSG/DGC-5. Please provide with supporting documentation and work papers the following:
(1) the length of mains and the number of services, tie overs, and meters and regulators for the Brockton, Lawrence, and Springfield service areas;
(2) estimates of the average direct cost per unit for each category of cost for the Brockton, Lawrence, and Springfield service areas.
- DTE 3-19 For each of the projects listed in Exh. BSG/DGC-8, please indicate the size and type of main that was installed and the size and type of main that was replaced.

- DTE 3-20 Please provide a legible copy of the pages labeled “Work Order Estimate Entry” (Bates number 3-89) and “Work Order Folders” (Bates number 3-90) in Exh. BSG/DGC-6.
- DTE 3-21 Please provide the capital authorization and closing reports for each of the projects listed in Exh. BSG/DGC-8.
- DTE 3-22 Please provide the capital authorization and closing reports for each of the projects listed in Exh. BSG/DGC-9.
- DTE 3-23 Refer to Exh. BSG/DGC-9. Please provide any study used by the Company as the basis for determining the “internal hurdle rate for project approval” and explain any differences in internal hurdle rates among projects.
- DTE 3-24 Refer to Exh. BSG/DGC-9, at 2. Please explain the reasons why a separate analysis was performed for List Number 17, the Monson/Palmer MassPower and Monson/Palmer Expansion. Provide a copy of such analysis.
- DTE 3-25 Refer to Exh. BSG/DGC-10. Please provide the capital authorization and closing reports for each of the projects listed in this exhibit.
- DTE 3-26 Please provide the capital authorization and closing reports for each of the projects listed in Exh. BSG/DGC-11.
- DTE 3-27 Please provide capital authorization and closing reports for all revenue producing projects begun or completed for years 1992 through 2004, costing \$50,000 or more but less than or equal to \$100,000. Provide a summary similar to Exhibit BSG/DGC-9. Provide a breakdown of those projects for the Brockton, Lawrence, and Springfield service areas with corresponding summary pages.
- DTE 3-28 Refer to Exh. BSG/DGC-1, at 18-19. Please provide any studies, reports and memoranda used by the Company as a basis for using the area-based mains replacement strategy. List all other approaches considered and state the reasons why they were not selected.
- DTE 3-29 Refer to Exh. BSG/DGC-1, at 18-19, and 24. Please provide a copy of any plan developed by the Company showing the geographic locations and time-lines for phasing in the replacement of mains under its steel infrastructure replacement program.

- DTE 3-30 Refer to Exh. BSG/DGC-1, at 24. Please provide for the years 2005 through 2014 the following:
- (1) any budget forecast for the Company's steel infrastructure replacement program; and
 - (2) a list of target municipalities where the Company plans to replace mains indicating the Company service area(s) for each municipality identified.
- DTE 3-31 Refer to Exh. BSG/DGC-9, at 22-23. Please describe with supporting documentation and work papers how the Company determined the \$20 million annual incremental expenditures over the 10- to 15-year period for its steel infrastructure replacement program.
- DTE 3-32 Refer to Exh. BSG/DGC-1, at 22. Please provide capital authorization and closing reports for Bay State's steel infrastructure replacement projects costing over \$50,000 that were associated with the Company's 2004 commitment of \$8 million.
- DTE 3-33 Refer to Exh. BSG/JES-1. Please provide with supporting calculations two schedules similar to Exh. BSG/JES-1, Sch. JES-17, at 3, with the following revisions:
- (1) a schedule with an additional column for 2004 costs that includes the \$8 million spent on steel mains replacement and a revised average for the five-year period; and
 - (2) a schedule with an additional column for 2004 costs that excludes the \$8 million spent on steel mains replacement and a revised average for the five-year period.
- DTE 3-34 Please provide a complete filing of the Company's steel infrastructure replacement ("SIR") Base Rate Adjustment. For purposes of this response, assume that the Company's SIR Base Rate Adjustment had been approved in 2003 and that the Company has spent approximately \$8 million during the first year's (2004) operation of the SIR program. Provide all supporting schedules as listed in Exh. BSG/JES-1, Sch. JES-17 and in Exh. BSG/SHB-1, at 42-43. If the \$8 million represents the total capital expenditures for bare steel main replacement in 2004, calculate the eligible additions for SIR as the difference between \$8 million (or the actual 2004 amount) and the four-year average historical bare steel replacement capital expenditure shown in Schedule JES-17, at 3. Provide copies of all invoices over \$1,000 as indicated in Exhibit BSG/SHB-1, at 43. Provide a complete description of the filing and explain all assumptions used.